
M.L Sompo Ceesay
Presentation

- Regulatory Framework
- Electricity Infrastructure issues
- Recommendations
PURPA

- Multi-sector Regulator
  - Est. PURA Act 2001
    - Electricity/Water/Telcoms
    - Transport, Broadcasting, Postal Services

- Board of Commissioners
  - Director General & 25 Staff

- Quality of Service

- Tariff Regulation
  - Electricity efficiency
    - Apply & Set Performance Standards
Sector Specific Legislation

Electricity Act of 2005

AN ACT to promote the development of the electricity sub-sector in The Gambia on the basis of the principles of a competitive and market-oriented economy, to regulate electricity service providers and the activities of persons required to be licensed and for matters connected therewith.
Regulatory Instruments

- Licensing
  - Electricity Act 2005
    - Generation
    - Transmission
    - Distribution
    - Dispatch
      - EIA, GIEPA, Feas. Study, Financial Resources etc
  - Application Form
  - Standards

- Enforcement
  - Enforcement Regulations
  - Electricity Tariff Filing Guidelines
  - HSE Guidelines
  - Min. Quality of Services Guidelines
Harmonized Licensing Sequence

7 Step IPP Application

1. Contact with NAWEC (NAWEC must be interested)
2. Collect Application Form (FFX) from PURA including Guidelines
3. Request for Land if applicable
4. Conduction an Environment Impact Assessment (EIA) in line with NEA Guidelines and Procedure
   • Obtain Environment Clearance After the EIA (Mandatory)
5. Submit PPA, EIA, Feasibility Studies, Land Allocation Documents and a duly filled PURA Licence Application Form
6. PURA evaluates and submits your application with a Recommendation to the Hon. Minister
   • Any documents missing PURA will revert to the investor
7. Decision of the Hon. Minister is conveyed to the Applicant by PURA
   • Licence Issued
Policy Advice

- Policy Advice to Minister(s)
  - Electricity Sector Reform 2009
    - Mins. Of Energy
      - National Forum
  - Policy Advisory Note to MEPID 2010
  - Tariff Determinations
    - Non-tariff recommendations
      - Structural & Operations improvements
Regulatory Interventions

- Historic Reduction of Tariffs in Nov. 2009
  - Tariff increase in 2011 (17%)
  - Tariff increase in 2012 (26%)
- Licences
  - Three IPPs
- Periodic Treks
  - Trek Reports of operating conditions
  - Quarterly visits to all Power plants
Energy Efficiency

- Energy Efficiency Awareness Campaign
  - On Newspapers & Radio Programmes
  - Presentations and Demonstrations
- 2008/2011 CFL Pilot Projects
  - Installed 2000 bulbs in Kanifing South
  - Installed 1000 bulbs in City of Banjul
    - Switched for free /incandescent bulbs
- Reduce domestic consumption
- Saving for consumers
- Improvement in voltage levels
Electricity Infrastructure Issues
Long Term Analysis

Historic Production of Electricity

- 6.4MW KPS
- 25MW BK.IPP
- 18MW KPS
- 3.4MW KPS
Demand Growth

- **NAWEC Literature**
  - estimates 6MW to added annually

- **WAPP Masterplan**
  - 2010 – 132MW (613GWh), 2020 – 186MW (847GWh)

- **OMVG Demand**
  - 2010 – 110MW
  - Current in Stalled Capacity is
    - 78MW
      - Available is 52MW
        - Transmission Capacity (<40MW) ??
NAWEC

- Institutional Issues
  - 30-yr old monopoly
  - Insufficient supply

- High network loses / leakages
  - Consumers/ Businesses paying for loses
  - High prices
    - Especially for business / manufacturing

- Underinvestment
  - Aging infrastructure
NAWEC

- Owner of generation/ T&D infrastructure
- Vertically integrated company
- Government owned
  - Lack of own capital to invest
  - Difficulty in soliciting funding

Services

- Electricity
- Waters (urban)
- Provincial Towns & large villages
- Sewerage (Banjul & Hotel Area)
National Electrification

Electrification Rates by Region
2008-2010

Regions in The Gambia

- Greater Banjul Area
- Western Region
- Upper River Region
- Lower River Region
- Central Region
- North River Region

Electrification Rate 08
Electrification Rate 10

GBOS/NAWEC
National Electrification

- Network more developed along the coast
- Some Rural Stations:
  - Only 180kW (Kaur)
    - Strong Potential for RE hybrid solutions
The Market Structure

an opportunity for the private sector
IPP Timeline

- 2005: Energy Policy
- 2006: Electricity Act
- 2008: Renewable Energy Study
- 2009: Brikama IPP
- 2010: CAMAC
- 2012: GAMWIND IPP

Additional Key Events:
- 2006: Batakunku IPP
- 2009: Jaconsen Electro
- 2010: Renewable Energy Law
- 2011: RE PPA
- 2012: Feed-in Tariffs
Pre-2005

- National Energy Policy
- NAWEC was the sole player.
- Annual Prod.
  - 157 million kWh
  - Annual Revenue
    - D700m
Current Situation

- Annual Prod.
  - 240 million kWh
- Annual Revenue
  - >D1.4bn
- Increasing Renewable Energy in the mix
Market Evolution/ Opportunities

- Competition in generation
- More IPPs
- Market based prices
- Cheap electricity costs
IPP Experience

- Brikama
  - 25MW
    - 16MW max available
    - 60% of Gen.
  - Benchmarking
    - More eff. than Kotu
      - Own Con. (2.9%)
  - Review of Contract
    - Can be improved

- Unsolicited offers
  - Investors set terms for government
    - From 1994 - 2012
    - 52 un-solicited bids
    - Only one has been implemented
      - Thames Energy (6yrs),
      - FRAMA S.A, NOVONO Ltd. Etc
    - CAMAC (Renewable)
    - Munich RE / Kronos (Renewable)
Conventional IPP Huddles

- All unsolicited bids have one thing in common
  - Credibility of NAWEC to pay for future power costs
  - Risks of fuel indexation
  - Request for a Sovereign Guarantee
  - Govt. unable to provide such guarantee
    - WB/IMF conditions
    - Poor fiscal situation
  - All negotiation never get pass PPA level
Renewable IPP Huddles

- Mixed progress
  - Credibility of NAWEC not really an issue
  - No request Sovereign Guarantee
  - However negotiations seem to favour developed
- High comparative tariffs
  - Determining ‘appropriate’ tariffs is a challenge
    - Both present and future
Wind Experience
# 2012 Tariff

<table>
<thead>
<tr>
<th>Electricity</th>
<th>Customer Category</th>
<th>Current Tariff D/kWh</th>
<th>New Tariff</th>
<th>% increase</th>
<th>US $ /kWh</th>
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<tr>
<td></td>
<td>D/kWh</td>
<td>D/kWh</td>
<td>D/kWh</td>
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<tr>
<td>Approved</td>
<td></td>
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<tr>
<td>Domestic (prepayment flat)</td>
<td>7.20</td>
<td>9.10</td>
<td>26%</td>
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<td>Commercial</td>
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<td>Hotel / Club / Industries</td>
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<td>10.40</td>
<td>16%</td>
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<td>9.10</td>
<td>14%</td>
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<td>Area Councils</td>
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<td>9.70</td>
<td>11%</td>
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<tr>
<td>Central Government</td>
<td>8.70</td>
<td>9.70</td>
<td>11%</td>
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Recommendations
Future Activities

- Large scale Renewable
- NAWEC should be involved
- Feed-in-Tariff
  - Would eliminate extensive PPAs
  - RE Law would be very useful
  - PURA would continue to play a leading role